



You make **possible**



Managing an Enterprise Network with Cisco Prime Infrastructure

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BRKNMS-2574

CISCO *Live!*

Barcelona | January 27-31, 2020



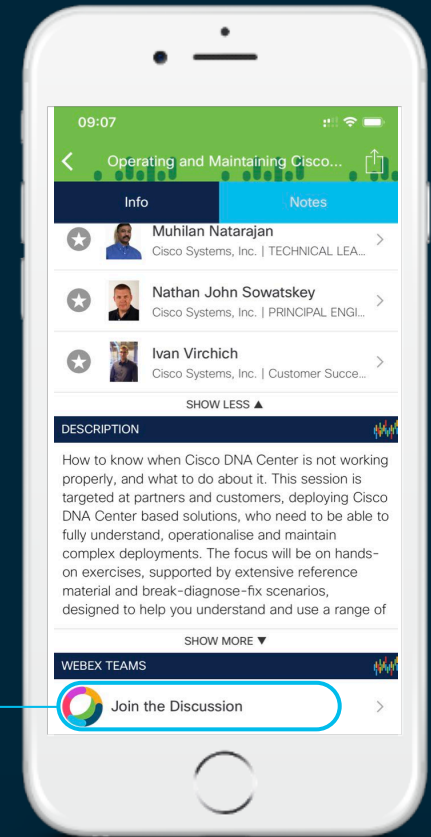
Cisco Webex Teams

Questions?

Use Cisco Webex Teams to chat with the speaker after the session

How

- 1 Find this session in the Cisco Events Mobile App
- 2 Click “Join the Discussion”
- 3 Install Webex Teams or go directly to the team space
- 4 Enter messages/questions in the team space



Prime is still here! But start planning migration to Cisco DNA-Center



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My wingman

Agenda

- Welcome and Introduction
- Getting started with Prime Infrastructure
- New capabilities of Cisco Prime Infrastructure 3.6 & 3.7
- A sneak peak of Prime Infrastructure 3.8
- How Prime Infrastructure and Cisco DNA-Center can CoExist
- How you can migrate from Prime Infrastructure to Cisco DNA-Center
- Key takeaways and Q&A

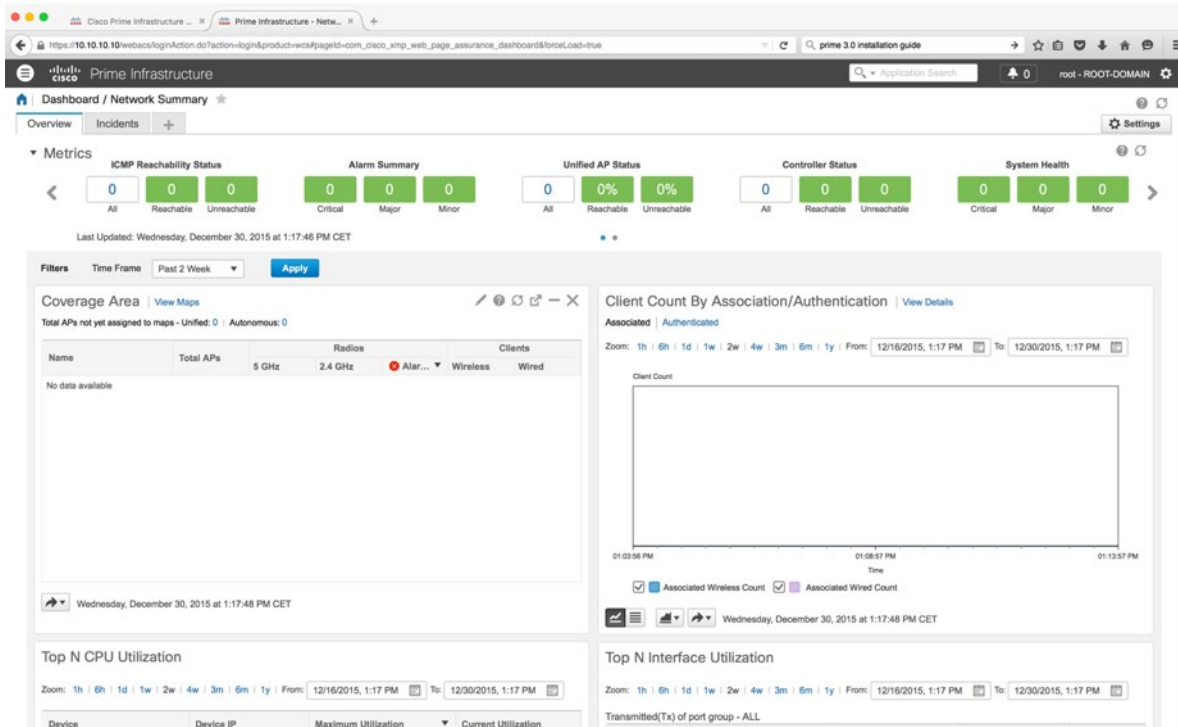
What has been covered in previous Cisco Live

- Onboarding
- Inventory
- Configuration
 - Router /Switches / AirOS Wireless Templates
- Reports
- Assurance & Monitoring
- Compliance
- Typical use cases from major Prime customers
- Prime 3.4 & 3.5 News

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Dashboard



User Interface



- Tablet friendly
- No Flash
- Metrics widgets
- Same Menu Structure as 2.2
- Menu on left

The screenshot displays the Cisco Prime Infrastructure dashboard. At the top, there's a navigation bar with the Cisco logo, 'Prime Infrastructure' text, an application search bar, a notification bell with '49' alerts, and the user 'root - ROOT-DOMAIN'. Below this is a 'Dashboard / Network Summary' header with tabs for 'Overview' and 'Incidents'. The main content area features several metrics widgets: 'ICMP Reachability Status' (89 All, 70 Reachable, 19 Unreachable), 'Alarm Summary' (49 Critical, 8 Major, 263 Minor), 'Unified AP Status' (23 All, 52.2% Reachable, 47.8% Unreachable), and 'Controller Status' (9 All, 6 Reachable, 3 Unreachable). A 'Last Updated' timestamp shows 'Wednesday, July 29 2015 at 01:38 PM'. Below the metrics are two main sections: 'Coverage Area' with a table of APs and 'Client Count By Association/Authentication' with a bar chart. The table lists various campus locations and their associated radio and client counts.

Name	Total ...	Radios			Clients	
		5 GHz	2.4 GHz	Al...	Wireless	Wired
San Jose Campus	12	14	12	12	0	0
Paris Branch	3	3	3	0	0	0
Amsterdam Branch	3	3	3	0	1	0
San Diego_comm...	0	0	0	0	0	0
Denver Branch	0	0	0	0	0	0
India Branch	0	0	0	0	0	0
London Branch	0	0	0	0	0	0
Los angeles Branch	0	0	0	0	0	0
Management App...	0	0	0	0	0	0

My top # Best Practices

1. Plan for migration to Cisco DNA-Center, Use DNA-Center CoExist for migration
2. Daily backup to a remote server and make sure your backup works
3. Running on HyperV or Vmware, reserve all allocated resources for best performance and use Thick Provision
4. Run latest's version as soon as first patch is out (So don't run 3.7 but wait for 3.7.1 or 3.7 device pack 1)
5. If severe issues with the PI Database, then Export : Wireless MAPS, Devices including credentials, Site hierarchy, Discovery jobs, Custom config templates and Compliance rule sets. Then Install new Prime and import it all



My top # Best Practices (Cont.)

6. Use Prime API's for repetitive tasks, example: use it to add GPS location to all Buildings
7. Check Job Dashboard for failed jobs (you might get surprised)
8. "Activate" all Dashlets on the Admin -> System Monitoring Dashboard
9. Getting to many alarms? Only send Alarms(traps/syslog) that you are going to react to.
10. When incidents happens, who is doing what, have a plan.
11. If using High Availability, write down the HA key and remember where you saved it!



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Prime Infrastructure 3.6 new features

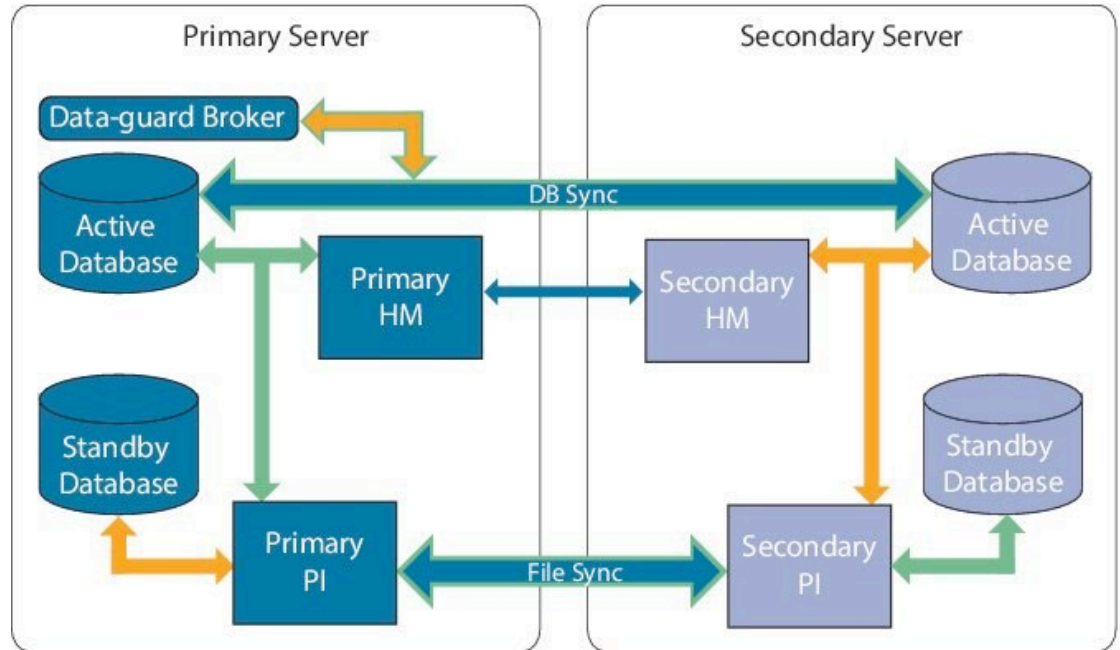
- Customize Ciphers for HTTPS/TLS
- Enable/Disable SSH Legacy Algorithms
- Review Configuration for Job Approval
- Reporting Framework
- Prime Operation Center Telemetry
- Prime API's
- High Availability
- Virtual Domain Dashlet

- Device Bulk Edit
- Export Device with Credentials including Device Name
- Port reclaim report
- Fault Reports
- Credential Profile - Export & Bulk Import
- Assurance - Customization of Log files
- EoGRE, mDNS on 9800, 9115AX, 9117AX, 9120AX, 1840 support

High Availability

High Availability been around for a while

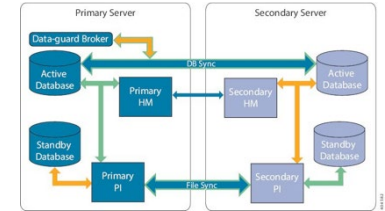
- Primary / Secondary server equal “size”
- Each server will have its own Hostname and IP address
- Can share a Virtual IP (recommended)
- Failover auto or manual
- Patching turn HA into manual
- Failover 2-3 minutes!



Installing Prime – High Availability

Prime Infrastructure servers can fail due to issues in one or more of the following areas:

- Application Processes
- Database Server
- Network
- System
- Virtual Machine



What's new? “High Availability Replication status”

Actions under each major category of the progress bar is as follows:

- **Pre-HA Registration**
 - ✓ System Level Prechecks
 - ✓ Peer Server Sync
 - ✓ Create HA Config

- **Database Replication**
 - ✓ Database DNS Check
 - ✓ Standby Database Creation
 - ✓ Copy Database Files

- **Post-HA Registration**
 - ✓ Update Database Files
 - ✓ Update System Firewall
 - ✓ Enable Database Archive policies

Demo, High Availability



User Interface (1/5)



HA Status

HA Configuration Mode HA Not Configured

HA Events HA Configuration

To enable HA, you must register HA on the primary server. The primary server needs no configuration during installation in order to participate in the HA configuration. The primary needs to have only the following information:

- The IP address or the host name of the secondary HA server you have already installed and configured
- The authentication key you set during installation of the secondary server
- One or more email address, to which notification will be sent
- The failover type

* Secondary Server

* Authentication Key

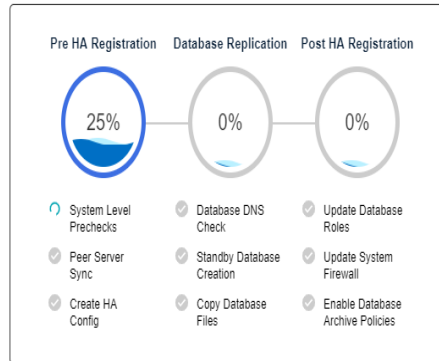
Enable Virtual IP

Email Address

Fallover Type

Check Readiness Register Clear

Note: If HA Registration is already in progress then, attempt to Save will fail.



User Interface (2/5)



Prime Infrastructure 35 root - ROOT-DOMAIN

Secondary Server

Secondary Server 10.104.119.215

Failover Type Manual

HA Status

HA Configuration Mode HA Initialization

HA Events HA Configuration

To enable HA, you must register HA on the primary server. The primary server needs no configuration during installation in order to participate in the HA configuration. The primary needs to have only the following information:

- The IP address or the host name of the secondary HA server you have already installed and configured
- The authentication key you set during installation of the secondary server
- One or more email address, to which notification will be sent
- The failover type

* Secondary Server 10.104.119.215

* Authentication Key *****

Enable Virtual IP No

Email Address

Failover Type Manual

Check Readiness Refresh Clear

Note: HA Initialization may take some time to complete. The entire database and data files need to be synchronized before becoming active. Click the Refresh button to view the updated status.

Pre HA Registration Database Replication Post HA Registration

75% 0% 0%

- System Level Prechecks
- Peer Server Sync
- Create HA Config
- Database DNS Check
- Standby Database Creation
- Copy Database Files
- Update Database Roles
- Update System Firewall
- Enable Database Archive Policies

User Interface (3/5)



Prime Infrastructure Application Search 5 root - ROOT-DOMAIN

Secondary Server

Secondary Server **10.104.119.215**

Failover Type **Manual**

▼ **HA Status**

HA Configuration Mode **HA Initialization**

HA Events | **HA Configuration**

i To enable HA, you must register HA on the primary server. The primary server needs no configuration during installation in order to participate in the HA configuration. The primary needs to have only the following information:

- The IP address or the host name of the secondary HA server you have already installed and configured
- The authentication key you set during installation of the secondary server
- One or more email address, to which notification will be sent
- The failover type

* Secondary Server **10.104.119.215**

* Authentication Key *********

Enable Virtual IP **No**

Email Address

Failover Type **Manual**

Note: HA Initialization may take some time to complete. The entire database and data files need to be synchronized before becoming active. Click the Refresh button to view the updated status.

Pre HA Registration **Database Replication** **Post HA Registration**

100% **75%** **0%**

- ✓ System Level Prechecks
- ✓ Peer Server Sync
- ✓ Create HA Config
- ✓ Database DNS Check
- ✓ Standby Database Creation
- Copy Database Files
- Update Database Roles
- Update System Firewall
- Enable Database Archive Policies

User Interface (4/5)



Prime Infrastructure 36 root - ROOT-DOMAIN

Secondary Server

Secondary Server: 10.104.119.215 [?](#)

Failover Type: Manual

▼ HA Status

HA Configuration Mode: HA Initialization

HA Events | **HA Configuration**

i To enable HA, you must register HA on the primary server. The primary server needs no configuration during installation in order to participate in the HA configuration. The primary needs to have only the following information:

- The IP address or the host name of the secondary HA server you have already installed and configured
- The authentication key you set during installation of the secondary server
- One or more email address, to which notification will be sent
- The failover type

* Secondary Server: 10.104.119.215 [?](#)

* Authentication Key: ***** [?](#)

Enable Virtual IP: No [?](#)

Email Address: [?](#)

Failover Type: Manual [?](#)

Note: HA Initialization may take some time to complete. The entire database and data files need to be synchronized before becoming active. Click the Refresh button to view the updated status.

Pre HA Registration | Database Replication | Post HA Registration

<div><p>100%</p><p>✓ System Level Prechecks</p><p>✓ Peer Server Sync</p><p>✓ Create HA Config</p></div>	<div><p>100%</p><p>✓ Database DNS Check</p><p>✓ Standby Database Creation</p><p>✓ Copy Database Files</p></div>	<div><p>25%</p><p>⚙ Update Database Roles</p><p>⚙ Update System Firewall</p><p>⚙ Enable Database Archive Policies</p></div>
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User Interface (5/5)



Prime Infrastructure Application Search root - ROOT-DOMAIN

Secondary Server

Secondary Server 10.104.119.215

Failover Type Manual

HA Status

HA Configuration Mode HA Initialization

HA Events HA Configuration

i To enable HA, you must register HA on the primary server. The primary server needs no configuration during installation in order to participate in the HA configuration. The primary needs to have only the following information:

- The IP address or the host name of the secondary HA server you have already installed and configured
- The authentication key you set during installation of the secondary server
- One or more email address, to which notification will be sent
- The failover type

* Secondary Server 10.104.119.215

* Authentication Key *****

Enable Virtual IP No

Email Address

Failover Type Manual

Check Readiness Refresh Clear

Note: HA Initialization may take some time to complete. The entire database and data files need to be synchronized before becoming active. Click the Refresh button to view the updated status.

Pre HA Registration Database Replication Post HA Registration

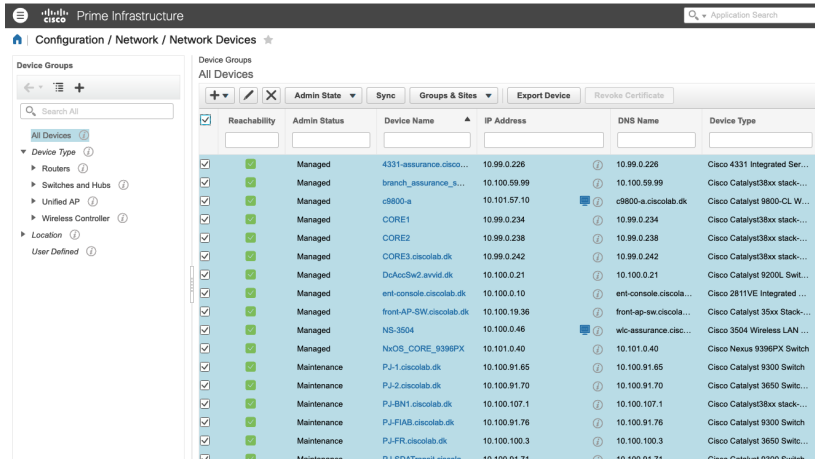
100% 100% 100%

- System Level Prechecks
- Peer Server Sync
- Create HA Config
- Database DNS Check
- Standby Database Creation
- Copy Database Files
- Update Database Roles
- Update System Firewall
- Enable Database Archive Policies

Device Bulk Edit

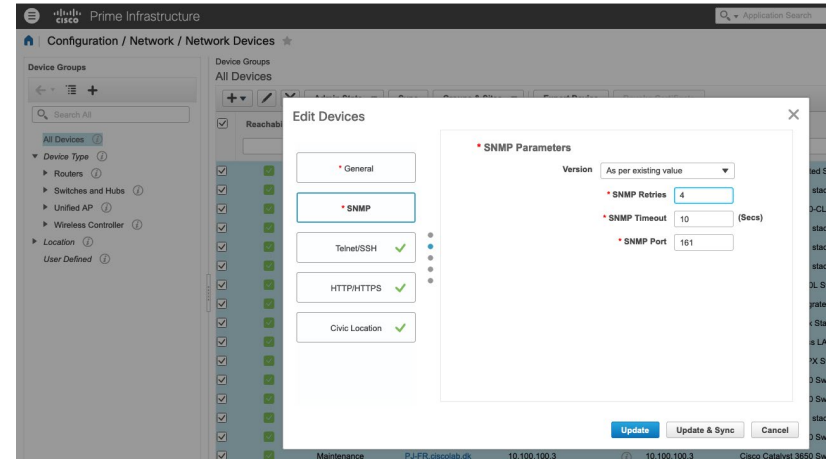
Device Bulk Edit

- Ever had to change credentials in PI for many devices?



The screenshot shows the 'Network Devices' page in Cisco Prime Infrastructure. A table lists various devices with columns for Reachability, Admin Status, Device Name, IP Address, DNS Name, and Device Type. A blue arrow points from this table towards the right.

Reachability	Admin Status	Device Name	IP Address	DNS Name	Device Type
<input checked="" type="checkbox"/>	Managed	4331-assurance.cisco...	10.99.0.226	10.99.0.226	Cisco 4331 Integrated Ser...
<input checked="" type="checkbox"/>	Managed	branch_assurance_s...	10.100.59.99	10.100.59.99	Cisco Catalyst38xx stack...
<input checked="" type="checkbox"/>	Managed	c8000-a	10.101.57.10	c8000-a.ciscocolab.dk	Cisco Catalyst 9800-CL W...
<input checked="" type="checkbox"/>	Managed	CORE1	10.99.0.234	10.99.0.234	Cisco Catalyst38xx stack...
<input checked="" type="checkbox"/>	Managed	CORE2	10.99.0.238	10.99.0.238	Cisco Catalyst38xx stack...
<input checked="" type="checkbox"/>	Managed	CORE3.ciscocolab.dk	10.99.0.242	10.99.0.242	Cisco Catalyst38xx stack...
<input checked="" type="checkbox"/>	Managed	DcAccSw2.avvid.dk	10.100.0.21	10.100.0.21	Cisco Catalyst 9200L Swit...
<input checked="" type="checkbox"/>	Managed	ent-console.ciscocolab.dk	10.100.0.10	ent-console.ciscola...	Cisco 2811VE Integrated ...
<input checked="" type="checkbox"/>	Managed	front-AP-SW.ciscocolab.dk	10.100.19.36	front-ap-sw.ciscola...	Cisco Catalyst 35xx Stack...
<input checked="" type="checkbox"/>	Managed	NS-3504	10.100.0.46	wlc-assurance.cisc...	Cisco 3504 Wireless LAN ...
<input checked="" type="checkbox"/>	Managed	NvOS_CORE_939RFX	10.101.0.40	10.101.0.40	Cisco Nexus 939RFX Switch
<input checked="" type="checkbox"/>	Maintenance	PJ-1.ciscocolab.dk	10.100.91.65	10.100.91.65	Cisco Catalyst 9300 Switch...
<input checked="" type="checkbox"/>	Maintenance	PJ-2.ciscocolab.dk	10.100.91.70	10.100.91.70	Cisco Catalyst 3650 Switc...
<input checked="" type="checkbox"/>	Maintenance	PJ-BN1.ciscocolab.dk	10.100.107.1	10.100.107.1	Cisco Catalyst38xx stack...
<input checked="" type="checkbox"/>	Maintenance	PJ-FIAB.ciscocolab.dk	10.100.91.76	10.100.91.76	Cisco Catalyst 9300 Switch
<input checked="" type="checkbox"/>	Maintenance	PJ-FR.ciscocolab.dk	10.100.100.3	10.100.100.3	Cisco Catalyst 3650 Switc...



The screenshot shows the same 'Network Devices' page, but with an 'Edit Devices' dialog box open. The dialog has tabs for 'General', '* SNMP', 'Telnet/SSH', 'HTTP/HTTPS', and 'Civic Location'. The '* SNMP' tab is selected, showing parameters for Version, Retries, Timeout, and Port.

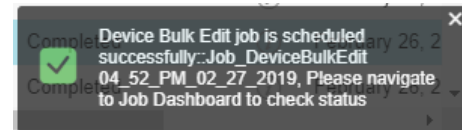
Edit Devices

- General
- * SNMP
- Telnet/SSH ✓
- HTTP/HTTPS ✓
- Civic Location ✓

*** SNMP Parameters**

- Version: As per existing value
- * SNMP Retries: 4
- * SNMP Timeout: 10 (Secs)
- * SNMP Port: 161

Buttons: Update, Update & Sync, Cancel



Device Bulk Edit job is scheduled successfully: Job_DeviceBulkEdit 04_52_PM_02_27_2019. Please navigate to Job Dashboard to check status

Checking Status of Job in Job Dashboard

Prime Infrastructure Application Search 347 root - ROOT-DOMAIN

Administration / Dashboards / Job Dashboard Job Approval | Settings | ? ↻

Metrics

User Job Status

9
Scheduled

50
Failed

0
Suspended

Poller Job Status

0
Scheduled

0
Failed

0
Suspended

System Job Status

13
Scheduled

1
Failed

12
Suspended

In Progress Jobs

0
User

0
System

0
Poller

My Jobs

9
Scheduled

50
Failed

0
Suspended

Last Updated: Wednesday, February 27, 2019 at 4:59:38 PM IST

Jobs

- ▼ User Jobs
- Compliance Jobs
- Config Deploy - Deploy View
- Configuration Archive Collection
- Configuration Archive Rollback
- Delete AP
- Device Bulk Edit
- Discovery
- Import Groups
- PNP APIC-EM SYNC JOB
- PNP APIC-EM SYNC JOB

Jobs / User Jobs

Device Bulk Edit Selected 0 / Total 9

✕ ✎ Edit Schedule
Run
Abort
Cancel Series
Pause Series
Resume Series
Show
Quick Filter

<input type="checkbox"/>	Name	Job Type	Status	Last Run Status	Last Start Ti...	Duration(h...	Next Start Time	Job Interval	Owner
<input type="checkbox"/>	Job_DeviceBulkEdit 04_52_PM_02_2...	Device Bulk Edit	Completed	✓ Success ⓘ	2019-02-27 16:52	00:00:01		NA	root
<input type="checkbox"/>	Job_DeviceBulkEdit 10_51_PM_02_2...	Device Bulk Edit	Completed	✓ Success ⓘ	2019-02-26 22:52	00:00:01		NA	root
<input type="checkbox"/>	Job_DeviceBulkEdit 10_51_PM_02_2...	Device Bulk Edit	Completed	✓ Success ⓘ	2019-02-26 22:51	00:00:01		NA	root
<input type="checkbox"/>	Job_DeviceBulkEdit 10_51_PM_02_2...	Device Bulk Edit	Completed	✓ Success ⓘ	2019-02-26 22:51	00:00:01		NA	root
<input type="checkbox"/>	Job_DeviceBulkEdit 10_50_PM_02_2...	Device Bulk Edit	Completed	✓ Success ⓘ	2019-02-26 22:50	00:00:01		NA	root
<input type="checkbox"/>	Job_DeviceBulkEdit 10_50_PM_02_2...	Device Bulk Edit	Completed	✓ Success ⓘ	2019-02-26 22:50	00:00:01		NA	root

Export Devices with Credentials including Device Name

Export Devices with Credentials

- **Inventory -> Network Devices**
- Select some/all devices, click on “Export Device” button. After filling password and file name, click on Export.

The screenshot shows the Cisco Prime Network Services interface. A dialog box titled "Export Device" is open, prompting the user to enter a password to lock the exported file. The dialog includes fields for "Password" and "Confirm Password", both masked with dots. Below these fields is a text input for "Export File Name" containing the text "device_details". There are "Export" and "Close" buttons at the bottom of the dialog. In the background, a table of network devices is visible, with columns for Reachability, Admin Status, Device Name, Device Type, Last Inventory Collection, and Last Inventory. The table shows 11 selected devices out of a total of 277.



A	B	C	D	E
ip_address	device_name	licenceLevel	snmp_ver	snmp
9.11.1.154	Router-154.Text	full	2c	pu
4.1.1.160	IFM-1812-4.1.1.160	full	2c	ab
7.3.3.34	ASR_Sanity	full	2c	pic
7.3.3.35	ASR_Sanity	full	2c	pic

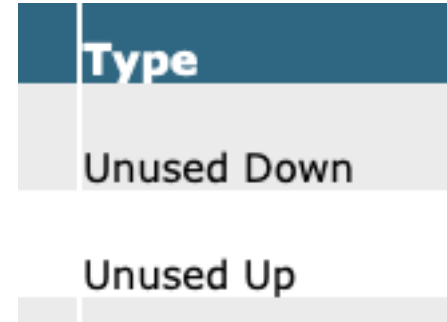
Port Reclaim report & Port Groups report

Port Reclaim Report

New report type combined results of both “Unused Up” and “Unused Down” Reports -> Device -> Port Reclaim Report
Choose report type ”Unused Up and Down”

The screenshot shows the Cisco Prime Infrastructure interface for configuring a Port Reclaim Report. The 'Settings' section is configured with Report Title 'CiscoLive', Report Type 'Unused Up and Down', Report By 'Port Groups', Report Criteria 'Always_Use', and Reporting Period 'Last 7 Days'. The 'Schedule' section has 'Scheduling' disabled, 'Export Format' set to 'CSV', and 'Destination' set to 'Email'. The 'Report Run Result' section shows a table of port reclaim results.

IP Address	Device Name	Port Name	Port Description	MAC Address	Admin Status	Operational Status	Last Used	Type
10.100.0.16	SR-SOWAN-MPLS	GigabitEthernet1/0/12		00:23:eb:07:46:8c	Down	Down	2019-Nov-12, 22:00	Unused Down
10.99.255.228	SR-ENTore-dicolab.dk	GigabitEthernet1/0/11		00:26:52:87:23:0b	Up	Down	2019-Sep-23, 11:29	Unused Up
10.99.255.228	SR-ENTore-dicolab.dk	GigabitEthernet1/0/12		00:26:52:87:23:0c	Up	Down	2019-Sep-23, 11:29	Unused Up



Port Reclaim Report

Filter on Port groups

Report By Port Groups

Report Criteria Always_Use

Reporting Period Last 7 Days Since

Port Groups

Search All

ALL

- ▶ Port Type
- ▶ System Defined
- ▼ User Defined
 - Always_Use
 - Never Use

Credential Profile – Export & Bulk Import

Export Credential Profiles

<input type="button" value="+ Add"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>	<input type="button" value="Copy"/>	<input type="button" value="Export Profile"/>	<input type="button" value="Bulk Import"/>
<input type="checkbox"/>	Profile Name <input type="text"/>	Description <input type="text"/>			
<input type="checkbox"/>	CiscoLive	Test for CiscoLive			
<input type="checkbox"/>	DNACServerProfile	Details of DNA Center Server			

Credential profiles are used in Discovery Jobs

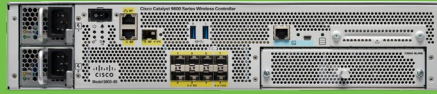
Being able to export the credentials profile is pretty useful if you are moving to a new Prime server and you want to avoid retyping credentials again

Prime Infrastructure 3.7 new features

- New Device Support & Dual coral Integration
- WPA3
- Inventory, Model Number,
- New Reports, Device Serial#, VLAN details, SFP+Module Details
- Email Notification for Partial Success Jobs
- Show Device Name in Change Audit Dashboard
- Updating Scheduled Approved Jobs Request Approval
- PSIRT & EOX job scheduling
- PI Reporting Framework, Copy reports
- Prime Operations Center
- Telemetry (Internal)

New Device Support & Dual Coral support

Cisco Catalyst 9800 support



Catalyst 9800-80



Catalyst 9800-40



9800-L-C/F



Catalyst 9800 for Cloud
Prime Infrastructure



Catalyst 9800-SW
for Cat 9k Switch

Cisco DNA Center

New Unified AP support: 9120, 1840

- ✓ Cisco Catalyst 9120 Series Unified AP– 9120AXI, 9120AXE and 9120AXP
- ✓ Cisco 1840 Series Unified AP – 1840I (for 9800 WLC – 16.12)



Dual Coral support in Prime 3.7

Coral is the name for the new 9800 Wireless controller collection engine used in PI 3.5, 3.6, 3.7 .(Operation data like AP's, Clients etc.)

PI 3.7 Prime will have 2 coral process running to support 9800 both 16.11x and 16.12x

9800 / Prime Compatibility Matrix			
	Prime 3.5	Prime 3.6	Prime 3.7(Dual-coral)
16.10x	X		
16.11.x		X	X
16.12.x			X

Not getting client/ap data from 9800 into Prime?

Make sure FW allows traffic between 9800 WLC and PI (Port 830, 20828 and 20830) and SNMP ports (161 & 162)

Google “prime netconf 9800”, open “Managing Catalyst 9800 Wireless Controller Series with Prime Infrastructure using SNMP v2 and SNMP v3 and NetCONF”

Follow the sections for SNMP + Netflow configuration on 9800 WLC and the Configure Prime

Troubleshoot Corel process's on Prime Server

```
pi37/admin#  
pi37/admin# shell  
Enter shell access password :  
Starting bash shell ...  
ade #  
ade # cd /opt/CSColumos/coralinstances/coral1/coral/bin  
ade # ./coral health  
Coral instance: 1 is running [status=2]  
    root path=/opt/CSColumos/coralinstances/coral1/coral/run/1/rootfs  
    harddisk=/opt/CSColumos/coralinstances/coral1/coral/run/1/storage/harddisk  
    log directory=/opt/CSColumos/coralinstances/coral1/coral/var/log  
  
ade #  
ade #  
ade # cd /opt/CSColumos/coralinstances/coral2/coral/bin  
ade # ./coral health  
Coral instance: 1 is running [status=2]  
    root path=/opt/CSColumos/coralinstances/coral2/coral/run/1/rootfs  
    harddisk=/opt/CSColumos/coralinstances/coral2/coral/run/1/storage/harddisk  
    log directory=/opt/CSColumos/coralinstances/coral2/coral/var/log
```

Status = 2 is good ;-)

Inventory: Model Number

Model number

Prime Infrastructure Application Search 25 root - ROOT-DOMAIN

Monitor / Managed Elements / Network Devices

Device Groups

Search All

All Devices

- Device Type
 - Routers
 - Switches and Hubs
 - Unified AP
 - Wireless Controller
- Location
- User Defined

Device Groups

All Devices

Selected 0 / Total 54

Admin State Sync Groups & Sites Export Device Revoke Certificate

	Reachability	Admin Status	Device Name	IP Address	DNS Name	Device Type
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	4331-assurance.cisco...	10.99.0.226	10.99.0.226	Cisco 4331 Integrated
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	branch_assurance_s...	10.100.59.99	10.100.59.99	Cisco Catalyst38xx st
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	c9800-a	10.101.57.10	c9800-a.ciscolab.dk	Cisco Catalyst 9800-C
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	CORE1	10.99.0.234	10.99.0.234	Cisco Catalyst38xx st
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	CORE2	10.99.0.238	10.99.0.238	Cisco Catalyst38xx st
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	CORE3.ciscolab.dk	10.99.0.242	10.99.0.242	Cisco Catalyst38xx st
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	DcAccSw2.avvid.dk	10.100.0.21	10.100.0.21	Cisco Catalyst 9200L
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	ent-console.ciscolab.dk	10.100.0.10	ent-console.ciscola...	Cisco 2811VE Integra
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	front-AP-SW.ciscolab.dk	10.100.19.36	front-ap-sw.ciscola...	Cisco Catalyst 35xx S
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	NS-3504	10.100.0.46	wlc-assurance.cisc...	Cisco 3504 Wireles
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed	NxOS_CORE_9396PX	10.101.0.40	10.101.0.40	Cisco Nexus 9396PX
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance	PJ-1.ciscolab.dk	10.100.91.65	10.100.91.65	Cisco Catalyst 9300 S
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance	PJ-2.ciscolab.dk	10.100.91.70	10.100.91.70	Cisco Catalyst 9300 S

Columns

- Reachability
- Admin Status
- Device Name
- IP Address/DNS
- IP Address
- DNS Name
- Device Type
- Last Inventory Collection Status
- Last Successful Collection Time
- Software Type
- Software Version
- Location
- Creation Timestamp
- Device Role
- Product Family
- Serial Number
- Model Number

Reset Close



Modul number dfor each device can be seen

Prime Infrastructure

Application Search

25

root - ROOT-DOMAIN

Monitor / Managed Elements / Network Devices

Device Groups

All Devices

Selected 0 / Total 54

Admin State Sync Groups & Sites Export Device Revoke Certificate

Name	IP Address	DNS Name	Device Type	Last Inventory Collection ...	Last Successful Col...	Software Version	Model Number
assurance.cisco...	10.99.0.226	10.99.0.226	Cisco 4331 Integrated Ser...	Completed	January 7, 2020 4:34:...	17.1.1	ISR4331/K9
assurance_s...	10.100.59.99	10.100.59.99	Cisco Catalyst38xx stack-...	Completed	January 7, 2020 4:26:...	16.12.1	WS-C3850-48F-E
	10.101.57.10	c9800-a.ciscolab.dk	Cisco Catalyst 9800-CL W...	Completed	January 6, 2020 9:00:...	16.12.1s	C9800-CL-K9
	10.99.0.234	10.99.0.234	Cisco Catalyst38xx stack-...	Completed	January 6, 2020 10:0:...	16.12.1	WS-C3850-48F-E
	10.99.0.238	10.99.0.238	Cisco Catalyst38xx stack-...	Completed	January 6, 2020 10:0:...	16.12.1	WS-C3850-48F-E
ciscolab.dk	10.99.0.242	10.99.0.242	Cisco Catalyst38xx stack-...	Completed	January 6, 2020 10:0:...	16.12.1	WS-C3850-48F-E
sw2.avvid.dk	10.100.0.21	10.100.0.21	Cisco Catalyst 9200L Swit...	Completed	January 6, 2020 10:0:...	16.12.1	C9200L-48P-4G
sole.ciscolab.dk	10.100.0.10	ent-console.cisca...	Cisco 2811VE Integrated ...	Completed	January 6, 2020 10:0:...	15.1(4)M10	CISCO2811
>-SW.ciscolab.dk	10.100.19.36	front-ap-sw.cisca...	Cisco Catalyst 35xx Stack-...	Completed	January 6, 2020 10:0:...	15.2(6)E1	WS-C3560CX-8XPD-S
4	10.100.0.46	wlc-assurance.cisc...	Cisco 3504 Wireless LAN ...	Completed	January 6, 2020 9:00:...	8.10.105.0	AIR-CT3504-K9
CORE_9396PX	10.101.0.40	10.101.0.40	Cisco Nexus 9396PX Switch	Wrong CLI Credentials	December 2, 2019 2:...		N9K-C9396PX
ciscolab.dk	10.100.91.65	10.100.91.65	Cisco Catalyst 9300 Switch	In Service Maintenance	January 5, 2020 12:2:...	16.12.1s	C9300-48U

And if you export devices, then model number is also included

PSIRT & EOX job scheduling

Scheduling PSIRT and EOX job

Its now possible to schedule when/how often PSIRT and EOX job should be run

The screenshot displays a web application interface for managing PSIRT and EOX jobs. At the top, there is a navigation bar with a home icon, the text 'Reports / Reports / PSIRT and EOX', and a star icon. Below this, there are buttons for 'Schedule Job' and 'View Job Details'. The main content area has tabs for 'Device PSIRT', 'Device Hardware EOX', 'Device Software EOX', 'Module Hardware EOX', and 'Field Notice'. The 'Device PSIRT' tab is active. Below the tabs, there is a search bar with a dropdown menu set to 'Device PSIRT CSV' and a 'Go' button. To the right of the search bar, there is a 'Show' dropdown menu set to 'All' and a filter icon. Below the search bar, there is a table with columns: 'Device Name', 'Device Type', 'IP Address', 'OS Type', 'OS Version', 'PSIRT Title', 'Vulnerable', 'Match Reason', 'Caveat', and 'CVSS'. The table is currently empty, and a message 'Device PSIRT is not available.' is displayed below the table. A 'Schedule' dialog box is open in the foreground, containing the following fields and options:

- Job Name: Job_PAS Profiling Job_10_45_30_645_AM_7_10_2019
- Start Time: Now Date 07/10/2019 10:45 AM (MM/dd/yyyy hh:mm AM/PM)
- Recurrence: None Weekly Monthly Yearly

At the bottom right of the dialog box, there are 'Submit' and 'Cancel' buttons.

Checking next scheduled job

- Navigate to **Reports -> PSIRT and EOX**
- Click on “View Job Details”
- Next job run schedule will be shown in popup under “Next Run” label

The screenshot shows the Cisco PSIRT and EOX Reports interface. The main page displays a table of devices with columns for Device Name, Device Type, and Device PSIRT CSV. A popup window titled "View Job Details" is open, showing the following information:

Next Run : "Job_PAS Profiling Job_4_48_54_032_AM_7_10_2019": At 4:53, on Monday in every 1 week(s)

Operation Details: Job completed with success **Operation Status:** COMPLETED_WITH_SUCCESS

S.No	Execution Logs
1	Job in Queue
2	PAS Profiling jobs for : End of Life Announcements, Field Notice, PSIRTs
3	Number of devices selected for profiling:56
4	Number of context devices not considered for profiling:0
5	PAS profiling started.
6	Number of FIS rule data loaded - 471
7	Number of Product rule data loaded - 6729

An "OK" button is visible at the bottom right of the popup window.

Agenda

- Welcome and Introduction
- Getting started with Prime Infrastructure
- New capabilities of Cisco Prime Infrastructure 3.6 & 3.7
- A sneak peak of Prime Infrastructure 3.8
- How Prime Infrastructure and Cisco DNA-Center can CoExist
- How you can migrate from Prime Infrastructure to Cisco DNA-Center

Prime Infrastructure Roadmap (CY2019-20)

PI 3.8 (Feb '20)

Wireless / Assurance

- 3.7.1 MR content
- Customer feedback enhancements

Wired/Assurance

- SVL Support on Cat 9300 & Cat 9500H
- Customer feedback enhancements
- Multi context support for ASA-5500-X
- Email Functionality supporting SMTPS and MSA encryption

Platform / TechDebt

- PSB requirements and customer specific security requirements
- Federal support

Cisco DNA Center Migration

- Dynamic sync for CMX
- Summary screen enhancements

Agenda

- Welcome and Introduction
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Datacenter Support End-of-life announcement

- What does it mean

Announced on March 28 2018

<https://www.cisco.com/c/en/us/products/collateral/cloud-systems-management/prime-infrastructure/eos-eol-notice-c51-740406.html>

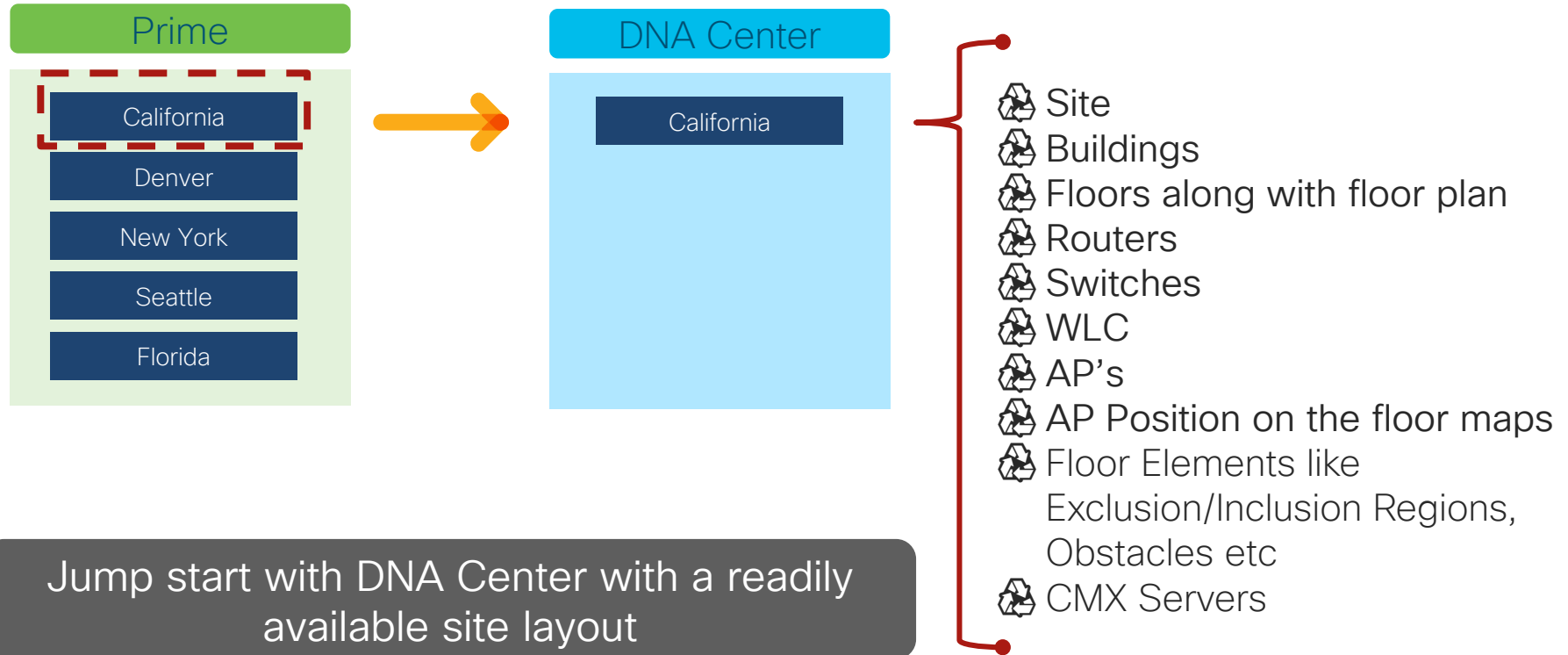
No longer support for :

- MDS switches (SAN)
- Nexus 2k, 3k ,5k, 6k, N9k
- UCS + Virtual Machines (servers)

Co-existence Objectives

- 1 Start using Cisco DNA Center with minimal efforts for Prime Infrastructure customers
- 2 Migrate Devices, Location Groups, Maps and CMX Servers from Prime Infrastructure to Cisco DNA Center seamlessly using the workflow
- 3 Allow Incremental updates to the migrated dynamically
- 4 Make it easy to run Prime Infrastructure and Cisco DNA-Center in parallel

Co-existence Overview



Start the Cisco DNA-Center Co-existence tool



https://10.101.1.69/webacs/loginAction.do?action=login&product=wcs&selectedCategory=en#pagelid=system_setting_pagelid

Prime Infrastructure

Administration / Settings / System Settings

System Settings

General

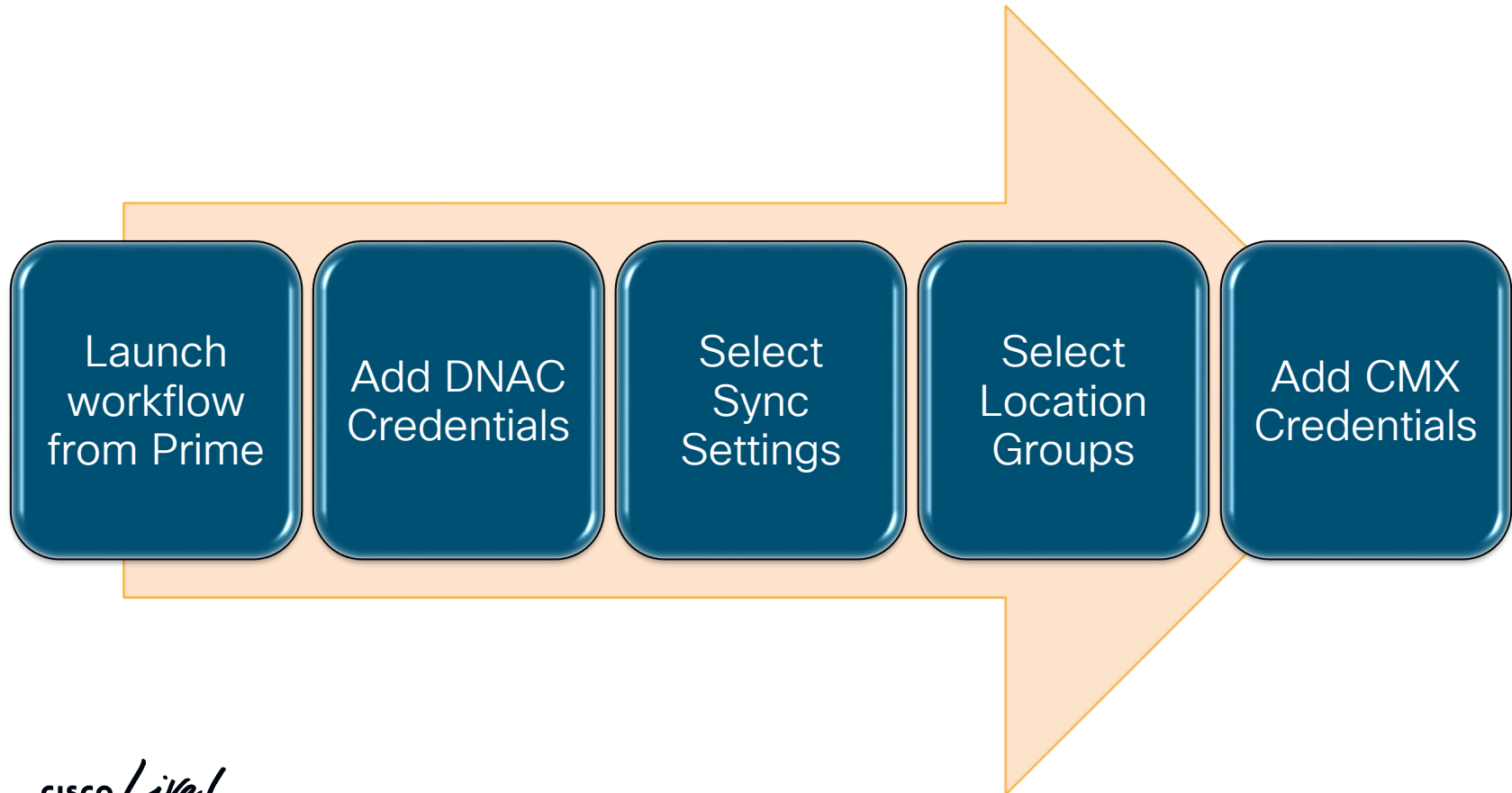
- Account Settings
- Data Retention
- Guest Account
- Help Us Improve
- Job Approval
- Proxy
- Login Disclaimer
- Report
- Server
- Software Update
- Support Request
- DNA Center coexistence

DNA Center coexistence >

Note : First time you click the link the tool itself has to start, this typically takes 3-5 minutes

Demo, Prime Co-existence

Workflow Summary



Sync Behavior



Force Sync

- Force sync essentially pushes all data, based on selection of groups, irrespective of the previous data push from PI to DNA Center
- For any setting change to come into effect, a force sync has to be done
- Initial sync from PI to DNAC will always be a force sync

Auto Sync

- Auto Sync is an incremental, dynamic synchronization of the data from PI to DNAC based on the earlier selection
- Any changes to groups association and device credentials will be synced
- CMX and Maps are not in scope of auto sync and need to be triggered via the Force Sync option
- Auto sync has 2 modes of operation :
 - ✓ Changes to the already synced groups and devices only are pushed to DNAC
 - ✓ Any new groups added as a sub-group to the already selected location groups and its device association are pushed to DNAC

Some comments on Cisco DNA-Center co-existence tool (1/4)



Supported Prime Infrastructure versus Cisco DNA-Center versions can be found in the Cisco Prime Infrastructure 3.X Administrator Guide (see upcoming slide)

For Catalyst 9800 WLC you will need to manually add Netconf “port” and SSH credentials
10.5.0 and above versions of CMX is supported
SNMPv1 not supported in DNA-Center

PI user credentials has to be Root

Area/Site/floor names has to have be less then 32 characters and not contain “/”

What happens behind the scenes: API calls between the Co-exist tool and Prime Infrastructure and between Co-exist tool and Cisco DNA-Center

Some comments on Cisco DNA-Center co-existence tool (2/4)



Migration of 500 groups + 1000 devices using force sync will take between 20-30 minutes

Removal of many groups/devices/maps takes more time(hours)

Tip : If you are having issues, try and do it manually to see the error messages. You can also have a look in the logfile on Prime
“/opt/CSCOlumos/logs/process_dnac_migration.log”

Adding an AP or moving and AP on a MAP requires a manual ”force sync” from the Co-exist tool

Some comments on Cisco DNA-Center co-existence tool (3/4) Prime Infrastructure 3.7



Appliance Type	Site Groups/Site Maps	Devices
DN1-HW-APL DN2-HW-APL	500	1000
DN2-HW-APL-L	1000	4000
DN2-HW-APL-XL	2000	5000

Cisco DNA Center Version	Supported/Recommended
1.2.1	Supported
1.2.2	Supported
1.2.3	Supported
1.2.4	Supported
1.2.5	Supported
1.2.6	Supported & Recommended
1.2.8	Supported & Recommended
1.2.10	Supported & Recommended
1.2.10.4	Supported & Recommended
1.2.11	Supported & Recommended
1.2.12	Supported & Recommended
1.3.0	Supported & Recommended
1.3.0.1	Supported
1.3.0.2	Supported
1.3.0.3	Supported & Recommended
1.3.1	Supported & Recommended



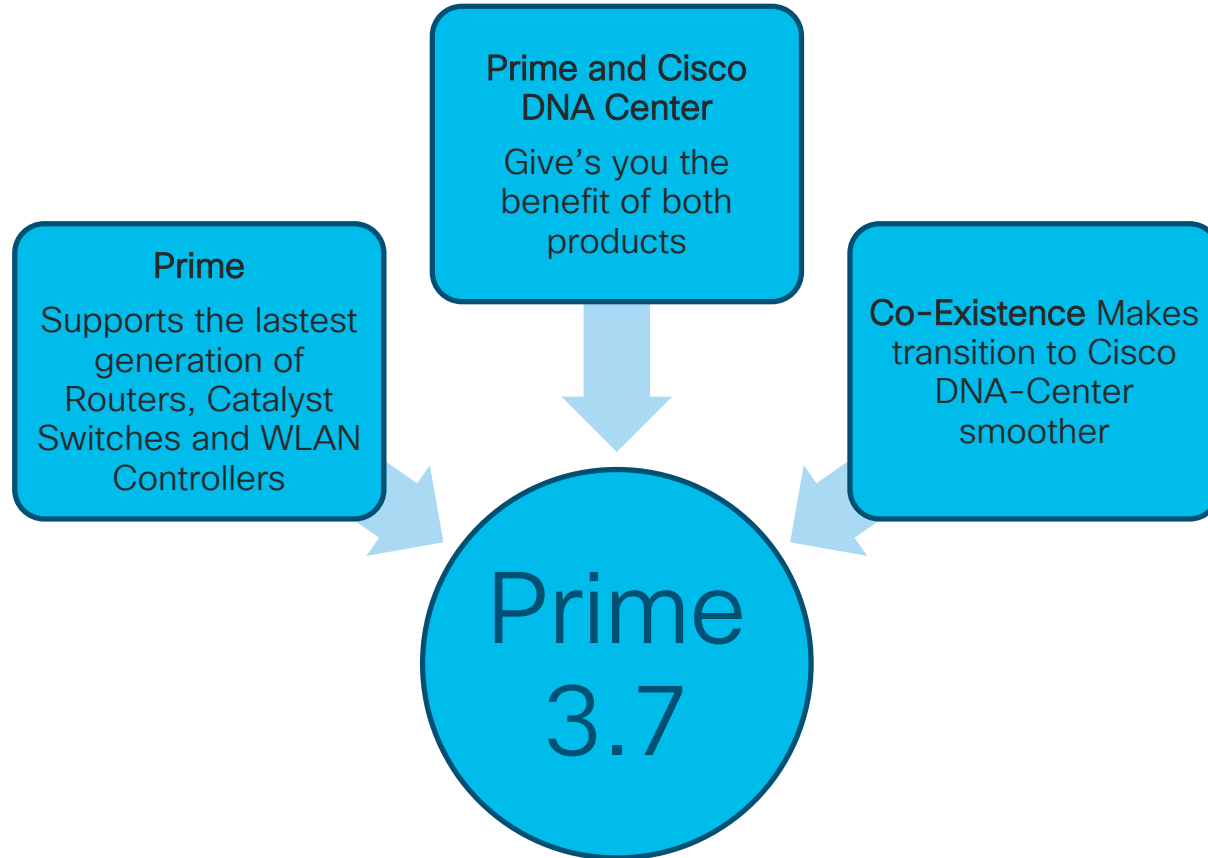
Some comments on Cisco DNA-Center co-existence tool (4/4)



**For Your
Reference**

- If your WLC('s) is not assigned to a site(unassigned) or its assigned to the “System Campus”, then it will not be exported to DNA-Center
- Sensor(s) will be deleted from maps if already added in DNA-Center

Key takeaways



Q & A



Mission statement

*Prime is still here, but start
planning migration to Cisco
DNA-Center*

Complete your online session survey



- Please complete your session survey after each session. Your feedback is very important.
- Complete a minimum of 4 session surveys and the Overall Conference survey (starting on Thursday) to receive your Cisco Live t-shirt.
- All surveys can be taken in the Cisco Events Mobile App or by logging in to the Content Catalog on ciscolive.com/emea.

Cisco Live sessions will be available for viewing on demand after the event at ciscolive.com.

Continue your education



Demos in the
Cisco Showcase



Walk-In Labs



Meet the Engineer
1:1 meetings



Related sessions



Thank you





You make **possible**